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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,709	05/03/2005	Said Mansouri	MANSOURI, S. - 1 PCT	9628
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COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			EXAMINER MEHTA, BHISMA	
			ART UNIT 3767	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/533,709	<b>Applicant(s)</b> MANSOURI, SAID	
	<b>Examiner</b> BHISMA MEHTA	<b>Art Unit</b> 3767	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-4,9-16,18,20 and 23-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-4,9-16,18,20 and 23-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: In line 19 of page 5, it appears that “sad separator piston” should be replaced with “said separator piston”. In line 3 of page 9, it appears that “the side valve” should be replaced with “the slide valve”. In line 1 of page 10, the word after “In order” is unclear. In lines 8-9 of page 5, it appears that “the fed piston” should be replaced with “the feed piston”.

Appropriate correction is required.

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification fails to disclose a hydraulic system connected to a feed piston where the hydraulic system comprises at least a first hydraulic chamber.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 2-4, 9-16, 18, 20, and 23-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the

application was filed, had possession of the claimed invention. The second hydraulic chamber being connected to the first hydraulic chamber so as to allow for continuous regulation of flow resistance lacks support in the specification as originally filed. Even though the specification discloses the second hydraulic chamber being connected to the first hydraulic chamber so as to allow for regulation of flow resistance, there is no disclosure of the continuous regulation of the flow resistance.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recitation of “one chamber” and “the other chamber” in lines 7-8 of claim 20 is unclear as to what these chambers are referring to as a first hydraulic chamber, a second hydraulic chamber, and a pressure chamber have all been previously recited.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 9-16, 18, and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Haar et al (U.S. Patent No. 6,440,099). In Figure 2, Haar et al show a

syringe having a slide valve (33) with a front element, a feed piston (18a) that is longitudinally slidable in a carpule volume and that has a pressure plate (21a), a first hydraulic chamber (adjacent to the pressure plate) which is connected to the feed piston pressure plate, a second hydraulic chamber (34a), and a control hole having an opening between the first and second hydraulic chamber. The second hydraulic chamber is behind and connected to the first hydraulic chamber, and is thus considered to be capable of allowing for continuous regulation of flow resistance. The slide valve has a slide valve pressure plate which is connected to the first hydraulic chamber. The front element of the slide valve projects or protrudes into the first hydraulic chamber and is considered to be capable of allowing for haptic feedback of the pressure in the first hydraulic chamber. The slide valve (33) is capable of closing or progressively opening the opening of the control hole between the first and second hydraulic chambers. As to claims 9 and 10, a touch-sensitive key pad (32) causes the control hole to open at least substantially parallel to the axis of movement of the slide valve when pressed and is disposed at least partially in a front half of the syringe. The axis of movement of the slide valve is disposed perpendicular to a longitudinal axis of the syringe. The slide valve is biased with a biasing force closing the control hole where the biasing force is the force that keeps the key pad in the position shown in Figure 2. As to claims 13-16, the valve (33) is considered to be the indexer piston that is connected to the first hydraulic chamber where a foot of the indexer piston projects into the first chamber. The indexer piston is slidably mounted and has a limit stop (the portion of the syringe where the key pad abuts the syringe in Figure 2). The indexer piston is considered to

be mounted such that it is biased against an exit direction. As to claim 18, the feed piston completely lies within a feed cylinder (23). As to claim 24, Haar et al show a syringe having a slide valve (33) with a front element, a feed piston (18a) that is longitudinally slidable in a carpule volume and that has a pressure plate (21a), a first hydraulic chamber (adjacent to the pressure plate) behind and connected to the feed piston pressure plate, a second hydraulic chamber (34a), and a control hole having an opening between the first and second hydraulic chamber. The second hydraulic chamber is behind the feed piston and connected to the first hydraulic chamber, and is thus considered to be capable of allowing for continuous regulation of flow resistance. The slide valve has a slide valve pressure plate which is connected to the first hydraulic chamber. The front element of the slide valve projects or protrudes into the first hydraulic chamber and is considered to be capable of allowing for haptic feedback of the pressure in the first hydraulic chamber. The slide valve (33) is capable of closing or progressively opening the opening of the control hole between the first and second hydraulic chambers. As to claim 25, Haar et al show a syringe having a slide valve (33) with a front element, a feed piston (18a) that is longitudinally slidable in a carpule volume, a hydraulic system connected to the feed piston and comprising at least a first hydraulic chamber (adjacent to the pressure plate), an indexer piston which is part of the slide valve and which is connected to the first hydraulic chamber, a second hydraulic chamber (34a), and a control hole having an opening between the first and second hydraulic chamber. The position of the indexer piston within the syringe (i.e. as positioned in Figure 2 and as positioned in Figure 3) would make the pressure in the

hydraulic chamber optically recognizable where a haptic feedback is provided alternatively or additionally. The second hydraulic chamber is behind and connected to the first hydraulic chamber, and is thus considered to be capable of allowing for continuous regulation of flow resistance. The slide valve has a slide valve pressure plate which is connected to the first hydraulic chamber. The front element of the slide valve projects or protrudes into the first hydraulic chamber and is considered to be capable of allowing for haptic feedback of the pressure in the first hydraulic chamber. The slide valve (33) is capable of closing or progressively opening the opening of the control hole between the first and second hydraulic chambers.

9. Claims 2-4, 9-12, 18, 20, and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Love (U.S. Patent No. 2,650,591). In Figure 7, Love shows a syringe having a slide valve (37) with a front element (38), a feed piston (10) that is longitudinally slidable in a carpule volume and that has a pressure plate, a first hydraulic chamber (25) which is connected to the feed piston pressure plate, a second hydraulic chamber (28), and a control hole having an opening between the first and second hydraulic chamber. The second hydraulic chamber is behind and connected to the first hydraulic chamber, and is thus considered to be capable of allowing for continuous regulation of flow resistance. The slide valve has a slide valve pressure plate (27) which is connected to the first hydraulic chamber. The front element of the slide valve projects or protrudes into the first hydraulic chamber and is considered to be capable of allowing for haptic feedback of the pressure in the first hydraulic chamber. The slide valve (37) is capable of closing or progressively opening the opening of the control hole

between the first and second hydraulic chambers. A separator piston (29) is disposed behind the second hydraulic chamber and is slidably mounted such that it is capable of reducing the size of the second chamber and of enlarging a pressurization space (i.e. the space within the first hydraulic chamber). The second hydraulic chamber would be caused to become smaller by the same amount as the pressurization space would be enlarged. As to claims 9 and 10, a touch-sensitive key surface (41) causes the control hole to open at least substantially parallel to the axis of movement of the slide valve when pressed and is disposed at least partially in a front half of the syringe. The axis of movement of the slide valve is disposed perpendicular to a longitudinal axis of the syringe. The slide valve is biased with a biasing force to close the control hole in the form of portion (39) of the slide valve. As to claim 18, the feed piston completely lies within a feed cylinder (21). As to claim 20, the feed piston is in use fed forward by a pressure in the first hydraulic chamber where there is a separator piston (29) which protrudes into a pressure chamber and into the second hydraulic chamber. The separator chamber is slidable so as to reduce the volume of one chamber and to enlarge the volume of the other chamber when being slid.

### ***Response to Arguments***

10. Applicant's arguments with respect to claims 2-4, 9-16, 18, and 20 have been considered but are moot in view of the new ground(s) of rejection. In response to applicant's argument that Haar et al and Love do not disclose means that enable a continuous regulation or means that enable a haptic feedback, a recitation of the



intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. As to Applicant's remarks in line 15 of page 14 to line 9 of page 16, the second hydraulic chamber of Haar et al is behind and connected to the first hydraulic chamber, and thus is capable of allowing for continuous regulation of flow resistance where the continuous regulation may be considered to be occurring as the slide valve (33) is being moved. Also, the front element of Haar et al protrudes into the first hydraulic chamber which would allow for haptic feedback of pressure in the first hydraulic chamber as the front element is connected to or part of the key switch (32) and haptic feedback of the pressure or sensing of the pressure in the first chamber would be possible due to the user sensing or feeling the position of the key switch. As to Applicant's remarks in lines 10-19 of page 16, the front element of Love protrudes into the first hydraulic chamber which would allow for haptic feedback of pressure in the first hydraulic chamber as the front element is connected to or part of the key switch (41) and haptic feedback of the pressure or sensing of the pressure in the first chamber would be possible due to the user sensing or feeling the position of the key switch.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BHISMA MEHTA whose telephone number is (571)272-3383. The examiner can normally be reached on Monday through Friday, 7:30 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Sirmons can be reached on 571-272-4965. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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